

APPLICANT(S): MOORE, Jonni et al.
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AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently amended) A method for determining beryllium sensitivity of a subject, said method comprising:
 - a. Obtaining a blood sample from a subject;
 - b. Selecting a peripheral blood leukocyte (PBL) population from said blood sample;
 - c. Staining a said peripheral blood leukocyte (PBL) population obtained from said blood sample subject with an intracellular protein stain, wherein said intracellular protein stain comprises carboxy fluorescein diacetate succinimide ester (CFSE);
 - d. Contacting said population with an amount of a beryllium containing compound sufficient to stimulate or enhance proliferation of said population; and
 - e. Measuring the loss of intracellular protein staining, whereby loss of intracellular protein staining indicates proliferation and that a subject is sensitive to beryllium.wherein the method further comprises the step of selecting a subpopulation of said peripheral blood leukocyte population using a cell surface marker and a viability marker, wherein said viability marker enables the exclusion of dead cells that lose CFSE.
2. (Canceled).
3. (Previously presented) The method of claim 1, wherein said subject exhibits symptoms associated with Chronic beryllium disease.
4. (Canceled).
5. (Canceled).
6. (Canceled) The method of claim 1, further comprising the step of selecting a subpopulation of said peripheral blood leukocyte population using a cell surface marker.
7. (Canceled) The method of claim 6, wherein said cell surface marker is CD3, CD4 or a combination thereof.
8. (Canceled) The method of claim 6, wherein said cell surface marker is CD8.
9. (Previously presented) The method of claim 6 wherein said surface marker comprises a fluorescent agent.

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10. (Previously presented) The method of claim 1, wherein said beryllium containing compound comprises a beryllium salt.
11. (Currently amended) The method of claim 10, ~~wherein~~ wherein said beryllium salt is beryllium sulfate, at a concentration of between about 1 to about 150 μ M.
12. (Original) The method of claim 1, wherein said method further comprises comparing the values obtained in step (c) with a standard.
13. (Canceled) The method of claim 1, wherein said measuring of intracellular staining is accomplished with the aid of a CFSE (carboxy fluorescein diacetate succinimide ester).
14. (Withdrawn) A kit for diagnosing metal-induced sensitivity in a subject, said kit comprising: an agent which selectively labels intracellular proteins—, an agent that selectively labels cell surface markers on a subpopulation of cells, at least one test metal, at a concentration sufficient to stimulate or enhance proliferation of a population of cells isolated from a subject with metal-induced sensitivity, and the software to analyze the results.
15. (Withdrawn) The kit of claim 14, further comprising a medium for isolating leukocytes from peripheral blood.
16. (Withdrawn) The kit of claim 14, wherein said agent which selectively labels intracellular proteins is fluorescent.
17. (Withdrawn) The kit of claim 16, wherein said agent is CFSE (carboxy fluorescein diacetate succinimide ester).
18. (Withdrawn) The kit of claim 14, further comprising an agent said agent selectively labels T lymphocyte cell surface markers.
19. (Withdrawn) The kit of claim 18, wherein said agent selectively labels, CD3, CD4, CD8 or a combination thereof and is fluorescent
20. (Withdrawn) The kit of claim 14, wherein at least one test metal is Beryllium, Titanium, Zirconium, Aluminum, Cobalt, Gold or their respective salts
21. (Withdrawn) The kit of claim 14, wherein the test metal is a beryllium compound.
22. (Withdrawn) The kit of claim 21, wherein said beryllium compound is a beryllium salt.
23. (Withdrawn) The kit of claim 14, wherein said beryllium salt is beryllium sulfate.

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24. (Withdrawn) The kit of claim 23, wherein said beryllium sulfate is formulated such that the final concentration of said beryllium sulfate is between about 1 to about 150 μ M per sample tested.
25. (Withdrawn) The kit of claim 14, further comprising at least one standard, obtained from a subject, or pool of subjects, without metal-induced sensitivity
26. (Withdrawn) The kit of claim 25, wherein said standard is obtained from a subject, or pool of subjects, without metal-induced sensitivity.
27. (Withdrawn) The kit of claim 25, further comprising a software package, wherein said software package compares the values obtained, with the test subject to determine sensitivity.
28. (New) The method of claim 1, wherein said viability marker is TO-PRO-3.